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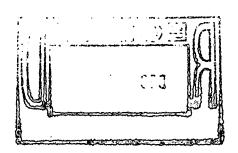
ADMIN RECORD

# Final Project Closeout Report For Buildings 122 and 122S

Revision: 0

March 2004

Remediation, Industrial D&D, and Site Services Kaiser-Hill Company, LLC



Review for Classification UNI
Name: CJ Frankle Upw
Date: 11 17/04

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#### I. Introduction

Building 122 was located in the central portion of the Rocky Flats Environmental Technology Site (RFETS), on the south side of Central Avenue (see RFETS Plot Plan, Appendix 1). Building 122 consisted of an 8600 ft<sup>2</sup> building that housed the site medical building. Building 122S was a small satellite building that contained a shredder. Although B122S was a Type 1 building, it is included in this closeout report because its demolition was part of the B122 project. Additionally, the decontamination trailer (T122A) was associated with the medical facility. T122A was moved to the T130 Complex and is still in use. T122A will be included in a future closeout report after it is taken out of use and dispositioned.

The Building 122 Project was completed in accordance with the Rocky Flats Cleanup Agreement (1996) and the Rocky Flats Cleanup Agreement Standard Operating Protocol (RSOP) for Facility Disposition. This document summarizes the actions taken and the final condition of the Building 122 Project.

#### **B122 Description**

Building 122 was constructed in 1953 as a single-story poured concrete building to function as the site medical building. Building 122 contained emergency medical services, personnel decontamination equipment, gamma counting operations, medical/infectious waste treatment, and administrative offices. Since the original construction, there have been several additions to the original structure. In the 1970s the body counting rooms were expanded, and an addition was built onto the south side of the building. In the 1990's an administrative section was added to the north side of the structure. The additions were constructed with concrete blocks and prefabricated concrete roof panels. The body counting rooms had specially designed steel walls with lead (Pb), tin and zinc shielding to eliminate cosmic radiation. In addition, the X-ray room had lead shielding in the walls.

Major waste-generating processes in this building included X-ray development and medical/infectious waste generation. The wastes included fixers, developers, decontamination water, and medical waste. Decontamination water was released to a process waste system and sent to Building 374 for treatment. In July 2002 the process waste drains in the building were grouted.

The most notable event at B122 occurred in 1969 when the entryway and some of the support rooms were contaminated with low levels of Pu. The contamination was the result of treating and decontaminating a contaminated worker from a fire in Building 776. The affected areas were decontaminated using damp wiping and other abrasive techniques. Some of the floor tiles in the contaminated areas were replaced, and a new floor was installed in the original shower area. Reconnaissance Level Characterization surveys determined that contamination from this event remained.

Building 122 was never connected to the original waste process system. Process waste from Building 122 drained to an above ground tank (T1) located at the southeast corner of the building. Process waste from Tank T1 was pumped to a truck and transported to B774 for treatment. When the new waste transfer system was installed in the late

1

1970's, a connection was made to the building's process waste system. Tank T1 was removed in the early 1980s.

Building 122 had the following utilities: electrical, plant water, plant sanitary, plant steam, site waste process system (grouted in July 2002), and fire protection provided by an overhead sprinkler system and wall-mounted fire extinguishers

#### II. Action Description

The basic deactivation strategy was to remove all excess material left in the facility by the previous operational groups. This involved removal of property for resale, trash suitable for disposal as non-routine sanitary waste, and items such as mercury switches and leftover chemicals that needed to be managed as hazardous waste. During this effort the three Lung Counter rooms were disassembled and removed. The steel from these rooms was produced prior to the atomic era and was sent to the Idaho National Engineering Laboratory for reuse. Two detection systems were sent to Colorado State University for reuse, and one remains onsite at T130C.

All hazardous materials were segregated for disposition per site programs. RCRA regulated items (including light bulbs, circuit boards, and mercury switches) were removed and dispositioned in accordance with state, federal, and site requirements.

Asbestos abatement was completed in the B122 that primarily involved removal of pipe insulation and floor tile. Due to contamination form the 1964 event, some of the asbestos was also characterized as low-level waste. Additionally, the Pb-lined walls were removed and recycled.

Prior to demolition, all facility utilities were disconnected and plugged or air gapped (see Section IX).

#### III. Verification Action Goals Were Met

Four action objectives were established for the Building 122 demolition project:

 Decontamination of the facility (as necessary) to support release for decommissioning per site approved procedures.

The facility's primary structures were decontaminated to free-release standards and placed in the off-site landfill. Asbestos containing materials were removed under abatement permit 04JE1041N, and Pb-lined walls were removed and sent for recycle.

• Decommissioning of the Building 122 facility in accordance with RFCA and applicable or relevant and appropriate requirements.

RFCA and other relevant requirements were complied with throughout the project. Consultations with the LRA were conducted throughout the project.

• Complete decontamination and decommissioning activities in a manner that is protective of site workers, the public and the environment.

Decontamination and decommissioning activities were completed within regulatory requirements. No injuries or releases to the environment occurred during the project.

#### Demolish and remove the B122 facility structures, utilities, and process waste lines

The facility structure, concrete foundation, and associated asphalt were removed during demolition. All foundations and utilities were completely removed from the immediate vicinity of B122, and do not remain at any depth. Utility disconnect locations are detailed in section IX.

#### IV. Verification of Treatment Process

This section is not applicable to this project.

### V. Radiological Analysis

See Appendix 2 of this document containing the Reconnaissance Level Characterization Report (RLCR) for Building 122.

### VI. Demolition Survey Results

This section is not applicable to this project.

#### VII. Waste Stream Disposition

The Building 122 Closure Project generated the following waste types including sanitary, asbestos, hazardous, low-level, low-level mixed, and recycled materials. Listed below is the quantity and disposal site for these waste types and material:

Sanitary Disposal	Facility debris (12/15/03 through 12/23/03)		
	BFI 93 Landfill, Golden CO		
Disposal Site:			
Waste Volume:	3619 cubic yards		
Waste Weight (tons):	2265.5 tons		
Additional Information:	Structure, slab, & asphalt		
Hazardous Disposal			
Disposal Site:	Transferred to MS for disposal @ the appropriate disposal facility.		
Waste Volume:	Approximately 1cy		
Additional Information:	Mercury switches, fluorescent lamps, circuit boards, etc		
TSCA Waste Disposal	NA		
Disposal Site:	•		
Waste Volume (m <sup>3</sup> ):			
Additional Information:			
Asbestos Waste Disposal			
Disposal Site:	BFI Tower Road		
Waste Volume:	60 cubic yards		
Additional Information:	Transite, TSI, Floor tile		

Low-Level Waste Disposal	(7) IP2 crates – contaminated building materials		
Disposal Site:	In process		
Waste Volume:	742 cubic yards		
Additional Information:	Will be transferred to MS for disposal @ the appropriate disposal facility.		
Low-Level Mixed Waste Disposal	(3) IP2 crates – contaminated building materials containing asbestos		
Disposal Site:	Envirocare, Utah (in process)		
Waste Volume:	318 cubic feet		
Additional Information:	Will be transferred to MS for disposal @ the appropriate disposal facility.		
Recycled Material			
Recycle Facility:	Transferred to PU&D for recycle @ appropriate facility.		
Waste Volume:	Approximately 3 cy		
Additional Information:	Pb from Pb-lined walls		
Property Disposition			
Receiver Locations (major	Idaho National Engineering Lab (INEL) and Colorado		
items only):	State University (CSU)		
	Lung Counter Steel (pre-atomic era) – INEL		
	Lung Counter Detector Systems - CSU		

#### VIII. Deviations From the Decision Document

There were no deviations to the decision documents.

### IX. Descriptions of Site Condition at End of Decommissioning

Building 122 was demolished, completely removing all utilities and foundations. All utilities were disconnected and air gapped as follows:

- The electrical power was air gapped at a pole near B124,
- Domestic water and fire suppression was air gapped in two locations: a)
  approximately 50yards from the southwest corner of the building, and b)
  approximately 20 yards from the southeast corner. Lines were completely removed to
  the disconnect point. The disconnect point is approximately 6 feet below the current
  grade.
- Sanitary sewer lines were flushed, air gapped, and plugged in one manhole directly
  west of the building, and another southeast of the building. Lines were completely
  removed to the disconnect point. The disconnect point is approximately 8 feet below
  the current grade.
- The supply and return steam lines were completely removed during the steam line removal project and will be documented in a separate closeout report.
- The natural gas line was abandoned in FY01, purges in July '04, and removed during demolition.

Locations of all disconnects are annotated on maps in Appendix 1. There is no remaining work to be completed at the B122 site, other than establishing the final site grade.

## X. Demarcation of Excavation

This section is not applicable.

### XI. Demarcation of Wastes Left in Place

All waste materials were removed.



### XII. Dates and Duration of Specific Activities

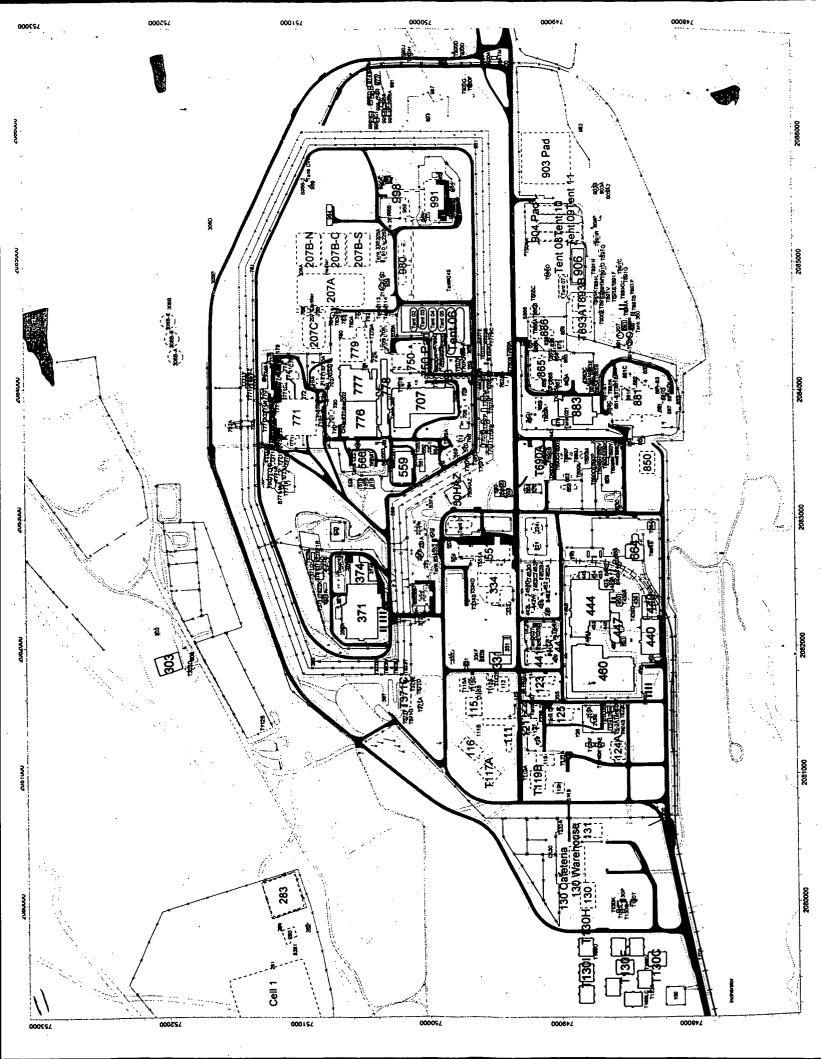
Activity	Responsible Contractor	<u>Dates</u>
Personnel Relocation	RFCSS	July-August 2004
Equipment Strip-out	Kaiser-Hill	July 2004
Pb Wall Strip-out prior to demolition	Kaiser-Hill	July-August 2004
Abatement	Kaiser-Hill	August - September 2004
RLCR/PDS	Kaiser-Hill	September 2004
Demolition Activities	Kaiser-Hill	September – October 2004

### XIII. Final Disposition of Wastes

See Section VII.

### XIV. Next Steps for the Area

Other than establishing final site grade, work at the site is complete.

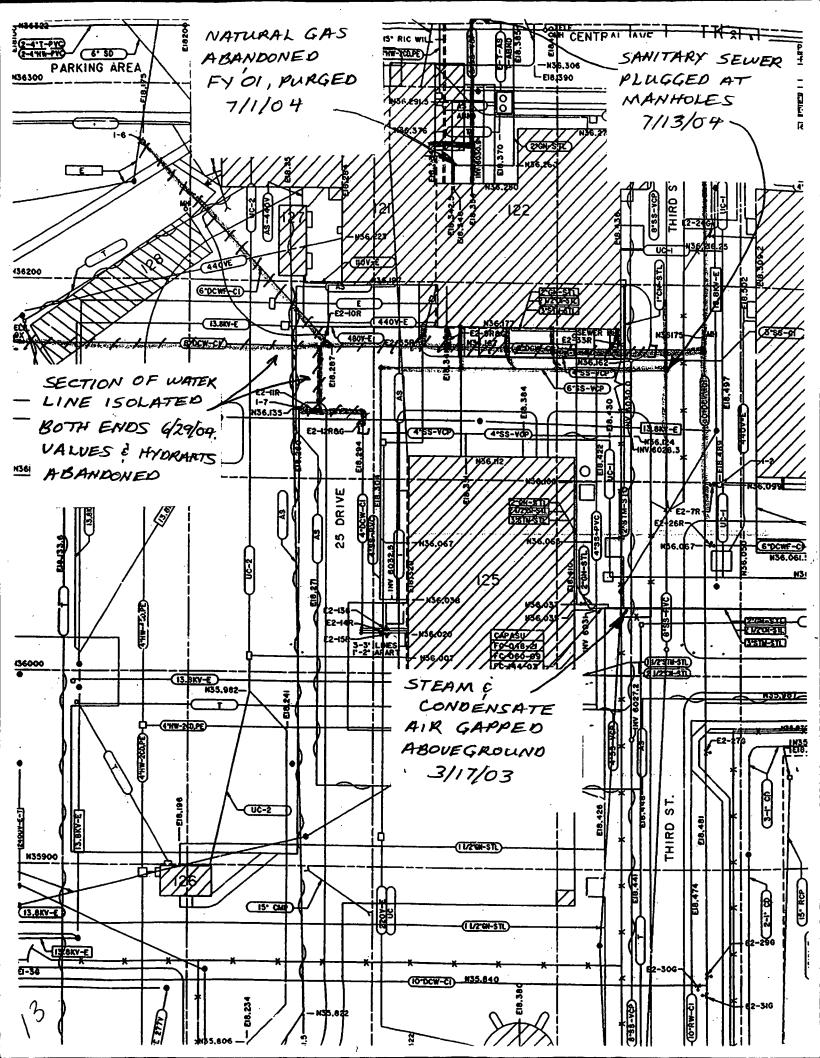


U.S. Department of Energy Rocky Flats Environmental Technology Sile Buildings Remaining --- Raltroad Remaining 121 and 122 Location Map --- Railroad Removed --- Fence Remaining Map Features ··· Fence Removed Paved Roads
Dirt Roads Streams CHZMHILL Lakes . 123 113 LESS CARAL Tenk 987 Tank 07 122 T122A 125 -122S 121 TE3A 127 Transformer -13.8 KVT. 480V Glatical Disconnected at pole -128

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Electric Utility Discouncet Map

V



# **APPENDIX 2**

# Reconnaissance Level Characterization/ Pre-Demolition Survey Report

# STATE OF COLORADO

Bill Owens, Governor
Douglas H. Benevento, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Denver, Colorado 80246-1530 Phone (303) 692-2000 TDD Line (303) 691-7700 Located In Glendale, Colorado Laboratory and Radiation Services Division 8100 Lowry Blvd. Denver, Colorado 80230-6928

(303) 692-3090

Colorado Department of Public Health and Environment

http://www.cdphe.state.co.us

September 7, 2004

Mr. Joe Legare
Director, Project Management Division
U.S. Department of Energy, Rocky Flats Project Office
10808 Highway 93, Unit A
Golden, CO 80403-8200

RE: Pre-Demolition Survey Report (PDSR) for Building 122 - Approval

Dear Mr. Legare:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division has reviewed the PDSR for Building 122, Revision 0 dated August 4, 2004. This PDSR was received on August 26, 2004. Based on the information contained in this PDSR, and the revised PDSR received on September 3, 2004, we are hereby approving the PDSR for Building 122 as revised.

As stated in this PDSR, Building 122 was initially thought to be a Type 1 Facility, but based on radiological contamination found during the initial characterization it was determined to be a Type 2 Facility. Although an RLCR was not completed or provided for our concurrence, we previously provided concurrence with the Type 2 determination for B122 and allowed decontamination to proceed as contained in a Contact Record dated 6/28/04. It is also recognized as you have stated in your accompanying letter dated August 19, 2004, that this PDSR will, in effect, act as the characterization report (RLCR) for B122.

If you have any questions regarding this correspondence please contact me at (303) 692-3367, or David Kruchek at (303) 692-3328.

Sincerely

teven H. Gunderson

**RFCA Project Coordinator** 

cc: Gary Morgan, DOE

Dave Shelton, KH Steve Nesta, KH

Administrative Records Building T130G

Karen Wiemelt, KH Mark Aguilar, EPA

Sam Garcia, EPA

### Colorado Department of Public Health and Environment

Air Pollution Control Division - Stationary Sources Program - Indoor Air Unit 4300 Cherry Creek Drive South, APCD-SS-B1

Denver, Colorado 80246-1530

Phone: 303-692-3100 - Fax: 303-782-0278

E-mail: asbestos@state.co.us

#### **LAL NOTICE DEMOLITIO**

This approval notice is grant Control Commission Regulation No. 8, Part B. March 1, 2004, the Air Ouality Control Act C.R. indice signifies that the of contractor has properly structure was inspected for as l notified the Colorado engal rsuant to Regulation No. 8, Part B.

As a contractor, you not the requirements of the Colorado Department d strongly suggests that yo any other local building/p

eing performed. The Control Division, es in order to determine

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THE ORIGINAL PER

TTE AT ALL TIMES.

depending on

Immediately notify the Unit of project modification number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.

> This demolition notice is valid beginning 9/13/2004 through 11:59 PM on 12/31/2004. The actual scheduled work dates are from 9/13/2004 through 12/31/2004.

Approval issued on: 9/13/2004

Record number: 43527

Notice Number: 04JE3164D

For the location specified below:

Bldg. 122

**RFETS, 10808 Hwy 93** Golden

**Jefferson County** 

This notice has been issued to:

Amount Paid: \$55.00. Check number: 154386

Asbestos Building Inspector: Charles W. McGlothlin, III Cerification No.: 9107

Inspection Date:

09/09/2004

Kaiser Hill LLC/Rky Flats Env. Tech 10808 Hwy 93, Bldg. T130H Golden, CO 80403

Issued by:

### Colorado Department of Public Health and Environment

Air Pollution Control Division – Stationary Sources Program – Indoor Air Unit 4300 Cherry Creek Drive South, APCD-SS-B1
Denver, Colorado 80246-1530
Phone: 303-692-3100 – Fax: 303-782-0278

E-mail: asbestos@state.co.us

# ASBESTOS APPROVAL NOTICE

This notice is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 18, 2003, and effective March 1, 2004, the Air Quality Control Act C.R.S. (25-7-101 and 25 7-501 et sep). It is only for the purpose of allowing asbestos abatement.

As a contractor, you may be subject to office the requirements, the pending on the requirements of the court, and printicipality in which the work is being performed. The Colorado Department of Riplic ideath and Environment are Partition Country in Country and municipal audiorities in order to determine any other local building/penditting requirements that must be met.

# THE ORIGINAL PERMIT MUST BE TO TED ON SITE AT ALL TIMES.

Immediately notify the Unit of project modifications by fax frametrications or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.

This asbestos approval notice is valid beginning 1/21/2004 through 11:59 PM on 10/1/2004. The actual scheduled work dates are from 1/21/2004 through 10/1/2004.

Amount paid: \$55.00 Check number: 148148

Approval issued on: 1/9/2004

Record number: 40424

Notice Number: 04JE1041N

For the location specified below:

Bldg. 122

10808 Hwy 93 Golden Jefferson County

This notice has been issued to:

Kaiser-Hill Construction Co. 10808 Hwy 93, Unit B Golden, CO 80403 Issued by: LS

Janu Shunger

# **APPENDIX 4**

# **CDPHE RSOP Notification Concurrence**

Bill Owens, Governor Douglas H. Benevento, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Denver, Colorado 80246-1530 Phone (303) 692-2000 TDD Line (303) 691-7700 Located in Glendale, Colorado http://www.cdphe.state.co.us

**Laboratory and Radiation Services Division** 8100 Lowry Blvd. Denver, Colorado 80230-6928 (303) 692-3090



Colorado Department of Public Health and Environment

September 7, 2004

Mr. Joseph Legare Director, Project Management Division U.S. Department of Energy, Rocky Plats Project Office 10808 Highway 93, Unit A Golden, CO 80403-8200

RE: B122 Facility Disposition RSOP Notification

Dear Mr. Legare:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division has reviewed your August 19, 2004 letter (received on August 26, 2004) notifying us that the Facility Disposition RSOP will be utilized during the demolition of Building 122. We hereby agree that B122 may be demolished utilizing the Facility Disposition RSOP.

Although the PDSR for B122 indicates that all of the radiological contamination has been decontaminated to meet the unrestricted release levels, this Notification states that the "radiologically contaminated portions of the slab will be protected during demolition of the upper structure, and managed as LLW." As such, please notify us of any contamination that may be identified during the demolition of B122, and as stated any contamination found must be properly protected to prevent releases during the demolition of B122 and removal of the slab.

If you have any questions regarding this correspondence please contact me at (303) 692-3367 or David

Kruchek at (303) 692-3328.

Sincerely.

Steven H. Gunderson **RFCA Project Coordinator** 

Gary Morgan, DOE cc:

Mark Aguilar, EPA Sam Garcia, BPA

Administrative Records Building T130G

Post-it\* Fax Note D. Parsons Co./Dept Co. Phone # Phone 4 Trax #

Karen Wiemelt, KH Dave Shelton, KH Steve Nesta, KH

